

Reconstruction of Gondwana calculated holding South America fixed in a present-day reference frame. Dotted lines are the 3,000-meter contour. Stippled areas in southeast India and Enderby Land are charnockite localities (Grew 1982-a, 1982-b). Double lines are approximate locations of lineations in Madagascar and southwest India (Katz and Premoli 1978). ("FP" denotes Falkland Plateau, "MR" denotes Mozambique Ridge, "RLIS" denotes Riiser-Larsen Ice Shelf, "LHB" denotes Lutzow-Holm Bay.)

Precambrian lineaments across India and Madagascar (Katz and Premoli 1979).

We feel that we have produced a viable reconstruction of a part of Gondwana. We used the available marine geophysical data to produce a model that turns out to be consistent with observed trends on land. It is ironic that our final reconstruction using the latest computer modeling capabilities looks very similar to the reconstruction of Gondwana published by DuToit in 1937.

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Fossil conchostraca: Gondwana continents, northern Victoria Land, Antarctica, and South Africa

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Gondwana continents. I recently completed a book-length manuscript, "Fossil Conchostraca of the Southern Hemisphere and Continental Drift. Paleontology, Biostratigraphy and Dis-

persal" (publication pending). This book describes new fossil conchostracan taxa, and/or revised known species, from Africa (Carboniferous, Permian and all of the Mesozoic), South America (same geologic spread as Africa), Antarctica (Devonian, Permian, and Jurassic) Australia (Devonian, Carboniferous, Permian, Triassic, and Cretaceous), and India (Carboniferous, Permian, Triassic, and Jurassic).

Shared fossil conchostracan genera and/or species (Paleozoic/Mesozoic) were found to occur between Antarctica, India, and Australia; Antarctica and Australia; Antarctica and Africa; Africa and South America (figure 1); India, Africa and South America. Previously hard data for equivalent and/or identical fossil conchostracan bioprograms in each of the southern continents, including Antarctica, were not available. Documenta-

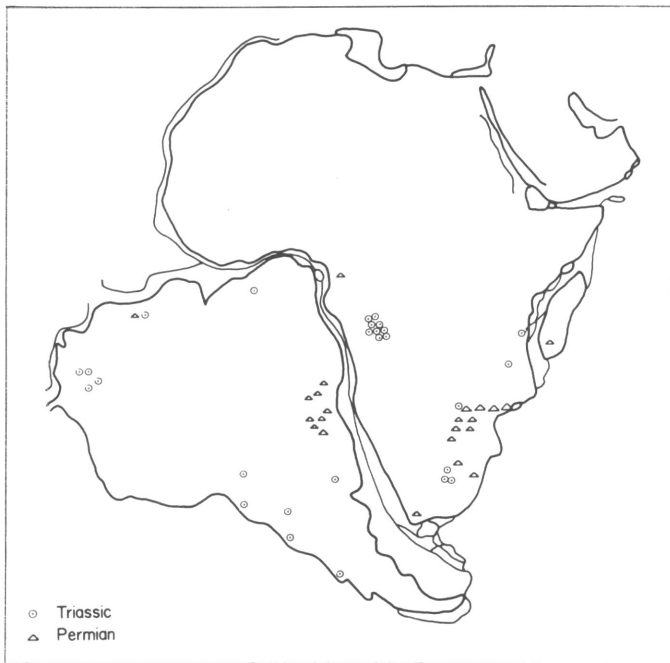


Figure 1. Distribution of conchostracan-bearing beds of South America and Africa (Upper Paleozoic/Lower Mesozoic). (An additional Permian locality occurs in Cordoba, Argentina.) A single point in many localities can represent one, a few, or multiple outcroppings in the general region indicated.

tion (taxonomy, measurements, photographs, biostratigraphy, paleoecology, evolution, and dispersal data) is given in the above manuscript.

Such dispersal evidence of what transpired between the southern continents has direct significance for drift theory, because conchostracans, living and fossil, occupy/occupied ephemeral non-marine habitats. [Transition from sea to land for conchostracans occurred in several pulses from Lower Devonian into Carboniferous time (Tasch 1969).]

Northern Victoria Land. Evidence has been accumulating of a new conchostracan district in northern Victoria Land, due to recent Jurassic collections by David Elliot from Agate Peak (a few fair specimens), Mount Frustum (fragments only), and Gair Mesa (best collection thus far). The more extensive Gair Mesa collection and additional material from Agate Peak are projected future studies, that will permit comparison with data available from southern Victoria Land Sites.

Mauger Nunatak. Restudy of some Mauger Nunatak slabs revealed the presence of sparse macroscopic plant debris. This

was in contrast to the apparent complete absence of floral evidence previously recorded.

Republic of South Africa and Lesotho. New species of *Cornia*, *Asmussia*, three new species of *Cyzicus*, and one undetermined species of *Paleolimnadia* have been described and placed in a biostratigraphic context in the Cave Sandstone of South Africa and Lesotho. A correlation between conchostracan-bearing beds in these two states was established (Tasch 1984).

Australia (New South Wales). A single fossil molluscan valve (pelecypod) merits comment, because it is the first ever found in the Newcastle Coal Measures conchostracan bearing beds (figure 2).

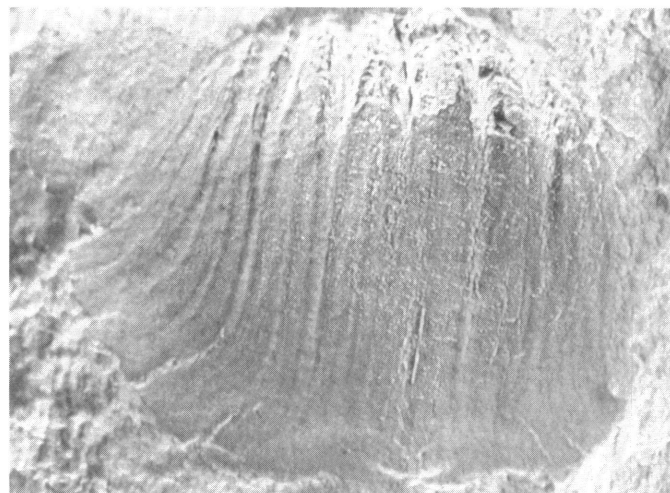


Figure 2. Rare occurrence: a single molluscan valve (Pelecypoda) in Upper Permian conchostracan-bearing beds of New South Wales, (Tasch 1984, station, bed 4).

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